No. 7400065

THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

Cornell University Agricultural Experiment Station

Whereas, THERE HAS BEEN PRESENTED TO THE

Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED NOVEL VARIETY OF SEXUALLY REPRODUCED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF seventeen YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE RIGHT TO EXCLUDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, OR IMPORTING IT, OR EXPORTING IT, OR USING IT IN PRODUCING A HYBRID OR DIFFERENT VARIETY THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY PROTECTION ACT. THE UNITED STATES SEED OF THIS VARIETY (1) SHALL BE SOLD BY VARIETY NAME ONLY AS A CLASS OF CERTIFIED SEED AND (2) SHALL CONFORM TO THE NUMBER OF GENERATIONS SPECIFIED BY THE OWNER OF THE RIGHTS. (84 STAT. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

ALFALFA

'Honeoye'

In Testimony Whereof, *I have hereunto set my hand and caused the seal of the* Plant Variety Protection Office *to be affixed at the City of* Washington *this* 13th *day of* September *in the year of our Lord one thousand nine hundred and* seventy-nine

PLANT VARIETY PROTECTION OFFICE U.S. DEPARTMENT OF AGRICULTURE

Attest:

Commissioner
Plant Variety Protection Office
Grain Division
Agricultural Marketing Service

Secretary of Agriculture

FORM GR-470
(12-15-72)

UNITED STATES DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
GRAIN DIVISION
HYATTSVILLE, MARYLAND 20782

FORM APPROVED
OMB NO. 40-R3712

APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE

INSTRUCTIONS: *See Reverse.*

1. VARIETY NAME OR TEMPORARY DESIGNATION	2. KIND NAME	FOR OFFICIAL USE ONLY	
'Honeoye'	Alfalfa	PV NUMBER 7400065	
3. GENUS AND SPECIES NAME	4. FAMILY NAME (Botanical)	FILING DATE 2-19-74	TIME 10:00 A.M.
Medicago sativa	Leguminosae	FEE RECEIVED	BALANCE DUE
	5. DATE OF DETERMINATION 30 November 1973	$ 50.00 $ 850.00 $	$ — $ — $

6. NAME OF APPLICANT(S)	7. ADDRESS (Street and No. or R.F.D. No., City, State, and ZIP Code)	8. TELEPHONE AREA CODE AND NUMBER
Cornell University Agricultural Experiment Station	Cornell University Ithaca, New York 14853	607-256-5420

9. IF THE NAMED APPLICANT IS NOT A PERSON, FORM OF ORGANIZATION: (Corporation, partnership, association, etc.)	10. STATE OF INCORPORATION	11. DATE OF INCORPORATION
State Agricultural Experiment Station	New York	1888

12. Name and mailing address of applicant representative(s), if any, to serve in this application and receive all papers:

Royse P. Murphy, Professor
Department of Plant Breeding and Biometry
Cornell University
Ithaca, New York 14853 Telephone 607-256-3101

13. CHECK BOX BELOW FOR EACH ATTACHMENT SUBMITTED:

[X] 13A. Exhibit A, Origin and Breeding History of the Variety *(See Section 52 of the Plant Variety Protection Act.)*

[X] 13B. Exhibit B, Botanical Description of the Variety

[X] 13C. Exhibit C, Objective Description of the Variety

[X] 13D. Exhibit D, Data Indicative of Novelty

[X] 13E. Exhibit E, Statement of the Basis of Applicant's Ownership

14A. Does the applicant(s) specify that seed of this variety be sold by variety name only as a class of certified seed? *(See Section 83(a). (If "Yes," answer 14B and 14C below.)* [X] YES [ ] NO

14B. Does the applicant(s) specify that this variety be limited as to number of generations? [X] YES [ ] NO

14C. If "Yes," to 14B, how many generations of production beyond breeder seed? [X] FOUNDATION [ ] REGISTERED [X] CERTIFIED

The applicant declares that a viable sample of basic seed of this variety will be deposited upon request before issuance of a certificate and will be replenished periodically in accordance with such regulations as may be applicable.

The undersigned applicant(s) of this sexually-reproduced novel plant variety believes that the variety is distinct, uniform, and stable as required in Section 41 and is entitled to protection under the provisions of Section 42 of the Plant Variety Protection Act.

Applicant is informed that false representation herein can jeopardize protection and result in penalties.

Mar 23, 1976
(DATE)

J. A. Kretz [signature]
(SIGNATURE OF APPLICANT)

Assoc. DIRECTOR

(DATE)

(SIGNATURE OF APPLICANT)

13A. Exhibit A

Origin and Breeding History of the Variety

1. 'Honeoye' originated from research in the Department of Plant Breeding and Biometry, Cornell University Agricultural Experiment Station, New York State College of Agriculture, Cornell University, Ithaca, New York. Selections were made from the cultivar, 'Saranac', which had been released in 1963 by the above agricultural experiment station.

2. Plants were selected in field nurseries for broad crowns, persistence, bacterial wilt resistance, vigor and dark green leaf color. The initial selection was made in 1963. Two cycles of selection and progeny testing followed.

3. One hundred and fifty parent clones were interpollinated to produce breeder seed of this cultivar.

4. The within cultivar stability is similar to that for 'Saranac' except for flower color. See exhibit C. The clones that produce Breeder seed are all variegated in flower color. Such clones are heterozygous for the genes for flower color. Subsequent generations (Breeder, Foundation and Certified) show approximately 25% of plants as purple-flowered and 75% as variegated-flowered. This frequency has been stable through these generations. This cultivar meets the established uniformity and stability standards for alfalfa cultivars and is similar in this regard to 'Iroquois', 'Vernal' and 'Narragansett'.

13B. Exhibit B

Botanical Description of the variety

'Honeoye' is typical of Medicago sativa except that most (75-85 percent) of the plants show some degree of variegation in flower color. The seed pods are coiled.

The growth characteristics are similar to those of the cultivar 'Saranac', except that many plants develop somewhat broader crowns and more stems per plant.

13C. Exhibit C

Objective Description of the Variety

'Honeoye', in its place of origin, is similar to 'Saranac'. It is superior to Saranac in respect to yield and density of stand and distinctly different from Saranac in flower color. All parental clones exhibited some degree of variegated flower color. Subsequent generations have approximately 15 percent of the plants without some obvious degree of variegation of color in the flowers. The plants with variegated flowers vary in color from yellowish purple shades through various gradations to purple with traces of either blue, green or yellow. The intensity of these colors and gradations vary with age of flower.

13D. Exhibit D

Data Indicative of Novelty ('Honeoye' 7400065)

Novelty is based on variegated flower color in a cultivar similar in growth habit to 'Saranac'. The most similar cultivar is Saranac.

This cultivar is clearly distinguishable from 'Saranac' and other "Flemish-type" cultivars by the flower color. 'Honeoye' is the only cultivar of this type known to us which exhibits a high degree of variegated flower color.

Quantitative data on flower color:

	Per cent	
	'Honeoye'	'Saranac'
Non-variegated		
a. Purple or violet shades	10	80
Variegated		
a. Purple and blue shades with some yellow pigments	65	15
b. Purple and blue green and yellow shades including cream and pale yellow	25	5

13E. Exhibit E

Statement of Applicant's Ownership

The Cornell University Agricultural Experiment Station is the owner of 'Honeoye'.

Enclosure 1

Data from a bacterial wilt test on 10 varieties tested with two sources of inoculum (Minnesota and New York). There were no variety x source of inoculum interactions. Conducted in the field in 1975 at Ithaca, N. Y. by R. P. Murphy.

Variety	Wilt Score (Reaction and survival)
Agate	0.77
Iroquois	1.14
Saranac AR	1.17
Vernal	1.34
Saranac	1.45
Apollo	1.45
Honeoye	1.66
Ranger	1.81
WL-305	1.89
DuPuits	3.35

All of these varieties are described as resistant except DuPuits.

Enclosure 2

Data from anthracnose test on varieties included in the 1974 Alfalfa Variety Test sponsored by NE-74 Regional Research Project (Courtesy U.S. Regional Pasture Research Laboratory).

Variety	Anthracnose Score (0=immune to 5=dead)
Saranac AR	2.67
Arc	2.68
Ramsey	3.64
Agate	3.81
Titan	4.18
Aztec	4.40
530	4.59
520	4.62
Honeoye	4.64
Victoria	4.68
Multileaf	4.78
Iroquois	4.81
Saranac	4.84
Kodiak	4.88
Bonus	4.98

This test was conducted in a plant growth chamber and at a very high level of infection. Data recorded on 4/7/75.

Enclosure 3

Observations from variety yield trials on the multifoliolate character:

None of the following varieties show a degree of multifoliolate plants as does Multileaf (±99% of plants with some degree of this character). A trace of such plants (±1%) may be found in Narragansett.

Agate	Phytor
Alfa	Ramsey
Americana	Team
Anchor	Thor
Apollo	Titan
Arc	Vernal
Aztec	Victor
Bonus	Vista
Cardinal	Weevlchek
CW-5	WL-218
Dawson	WL-219
DuPuits	WL-305
Gemini	WL-307
Glacier	WL-309
Kanza	WL-311
Klondike	WL-318
Kodiak	131
Nugget	167
Narragansett	520
Olympian	521
Pacer	530

Enclosure 4

Observations from variety yield trials on flower color:

None of the following varieties show a significant degree of variegated or yellow flowered plants as does Honeoye (±85% of plants with variegated or yellow flowers).

Alfa	Phytor
Anchor	Team
Apollo	Thor
Arc	Victor
Aztec	Vista
Bonus	WL-219
Cardinal	WL-305
CW-5	WL-307
Dawson	WL-309
DuPuits	WL-311
Kanza	WL-318
Klondike	131
Kodiak	520
Nugget	521
Olympian	530